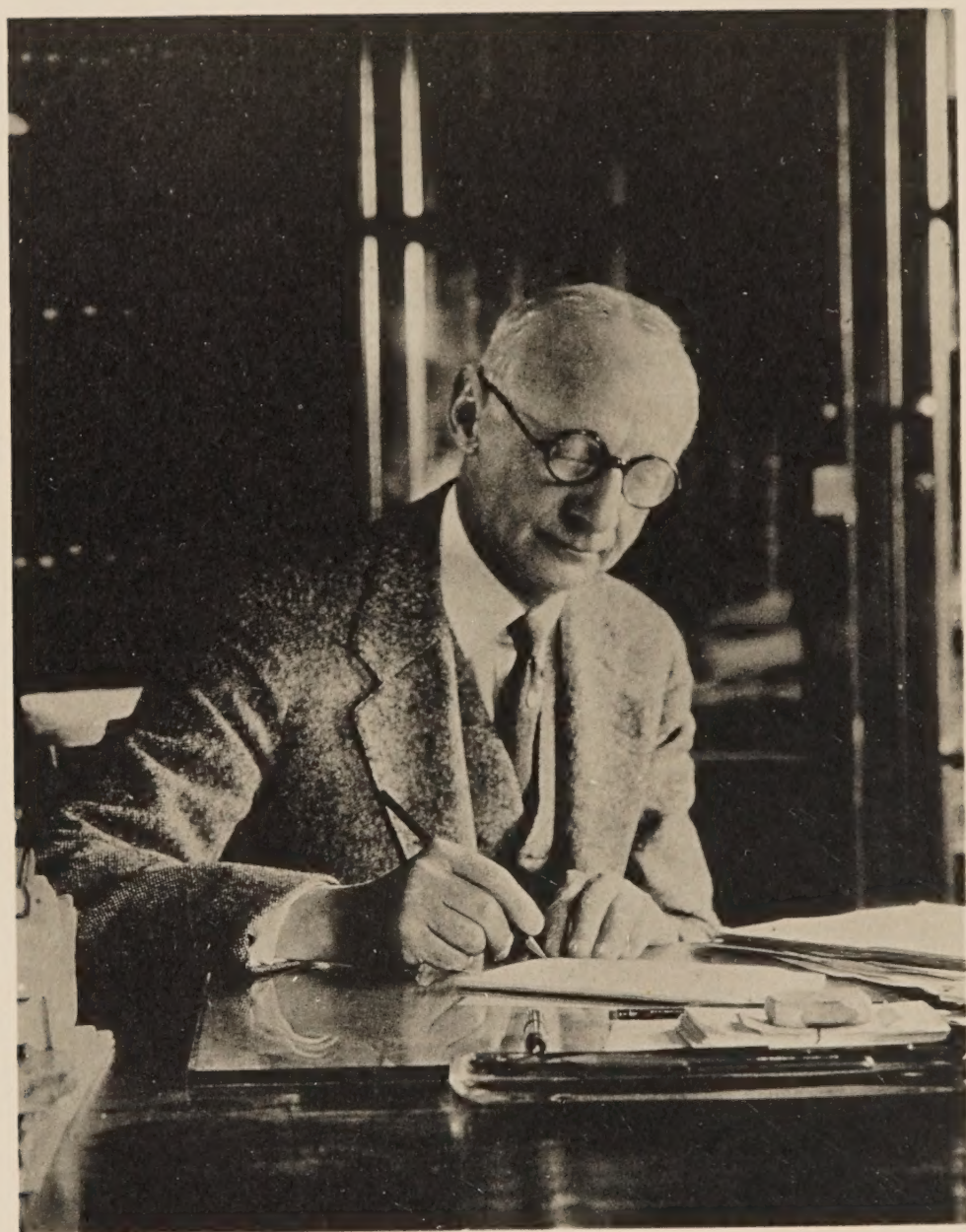


~~BIOGRAPHY~~ HIST. 1A
SIMON FLEXNER

1863-1946

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Memorial Meeting
for
SIMON FLEXNER

Speakers

HERBERT S. GASSER
LEARNED HAND
PEYTON ROUS
RAYMOND B. FOSDICK
JOHN D. ROCKEFELLER, JR.

THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

JUNE TWELFTH

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FLEXNER, Simon [1863-1946]

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I

WHILE we are gathered here this afternoon it is our desire to set aside our preoccupation with the future of a troubled world and to turn our thoughts backward over an era of marvelous progress in scientific medicine, with the intent of bringing to mind how it has come about that we stand where we do today.

So rapid was the advance, and so much of it occurred in years now receding into the past, that it must be difficult for newcomers to the brotherhood of investigators to realize how greatly the organization for research in which they find themselves differs from that in a time not long gone by, and to appreciate how the present high position has been won. Some of us who are older arrived on the scene early enough to follow the course of events after the leavening influence had begun to work. We recall how we were carried upward on the rising tide of progress. One medical school after another was reorganized. Higher standards were set. Better ways of doing things were proposed. Everywhere there was more opportunity. It was a stirring period. We, who were benefited beyond all anticipation, will, I hope, be known as the grateful generation. For happily there are here today men who at the starting point saw the great need and became instrumental in bringing about the change.

Whenever a great forward movement takes place it happens only through the vision, insight, and tireless devotion of great men who rise to be its leaders. Rightly

the age of American medicine to which I have been referring has been called heroic. Today we meet to pay honor to one of its heroes, Dr. Simon Flexner. Some of the many ways in which he earned that title will appear in the addresses to follow, and I shall limit myself only to certain aspects of the organization which he evolved, and which above all else will forever be associated with his memory: The Rockefeller Institute for Medical Research.

One would, I think, miss the full significance of what Dr. Flexner accomplished if one were to evaluate it solely by bringing forward the new knowledge that has been produced and recorded in the *Studies*, or by listing the many men with a training in scientific medicine who have gone forth to positions of responsibility where they could start new centers, or by noting the influence of details of organization. One must look beyond all these to see what it has meant that he made of the institution as a whole a successful enterprise. One must see in historic perspective the position of the Institute as an institution of learning.

It is possible to speak of historic perspective in relation to four decades because the course of the development of accumulative knowledge is such that these decades mark an advancement of science comparable to that which occurred in all the years preceding them. In the seventeenth century the scientific academies arose to compensate for the conservatism of the universities, which were failing to foster the young scientific movement. Through their agency the universities were awakened; and in due course

they expanded to meet all needs up to our own time, when again the feeling arose that the demand for new knowledge was so urgent that it could not be satisfied by them. This was the atmosphere in which the Institute was founded.

For a number of reasons Dr. Flexner early departed from the structure of the already existent prototypes, the Pasteur and the Koch Institutes, and developed an organization which he thought best suited to the purposes he had in mind. In many ways it resembles that of a university, the difference being mainly in the emphasis on research and the provision of centralized services to aid it; for the amount of teaching is by no means negligible. The significance of his achievement is, I feel, not so much that institutes, started later, admittedly used his organization as a model, as that the success of his endeavor has been influential in accelerating the evolution of institutions of learning into a triad in which, alongside of the university and the scientific academy, the research institute has come into position. Fortunately the universities at the same time have gained rather than lost ground; and, indeed, there has been a growing tendency to incorporate in the universities sectors with research institute structure.

In the spring of 1902 when the Board of Directors had definitely come to the conclusion that the time was ripe to start a laboratory, they officially requested Dr. Flexner to prepare a statement of his views on the nature of an establishment for a research institute. Reading of that memorandum now, in full knowledge of the later mate-

rialization, reveals the extraordinary clarity with which he had thought his way into what, if possible, would be done. As he wrote that statement the connecting link in the chain of developments must have been forged. It must be remembered that the initiative had come from laymen, and that there had been pending for several years the bold and adventuresome idea, entertained by Mr. John D. Rockefeller and his associates, of starting in this country an institution entirely devoted to medical investigation. Now the imagination of Dr. Flexner had caught fire.

We know of Dr. Flexner's passionate devotion to research. At that time he had to his credit a large number of important contributions to bacteriology, pathology, and general biology. And he had a secure position in an important professorship. What a momentous decision he had to make when he was urged to assume the directorship! As yet there was no assurance that the undertaking would be permanent. Everything would depend upon what he, himself, could do. We know from a page in his biography of Dr. Welch that he had misgivings, and even doubts about his competence to conduct a purely research laboratory. But he had had a vision of a great opportunity. And the vision led him on.

At this juncture our understanding of what took place is only made possible by supplying an intangible something that does not appear in the printed archives. The deliberations during the first year of operation must have generated very deep-rooted bonds of mutual confidence between Mr. Rockefeller, Jr., and Mr. Gates, on the one

hand, and Dr. Flexner and the Board of Directors on the other. And even then the Board must have sensed how close the project was to the heart of the founder.

The extraordinary insight that caused Dr. Flexner to value the spirit above the word, and led him to accept the directorship, marks the beginning of a rare story of human relationships. The beginnings were modest to be sure. Everyone had agreed on that. And he had to satisfy President Eliot's dictum that the first step toward obtaining an endowment is to deserve it. But as he did so, the representatives of Mr. Rockefeller would come forward with additional support or some new proposal. At times the innovations had an audacity beyond the dreams of a scientist, as notably when the unique conditions for the operation of the Hospital were decided upon. In his later years Dr. Flexner made the statement that there had been less danger of being starved for funds than from being encouraged to proceed too rapidly.

The Institute that is all about us is an enduring tribute to Dr. Flexner. It represents the fulfillment of what he foresaw in the 1902 memorandum. And it reflects the philosophy he expressed in the following quotation from an address to the graduating class at Cornell in 1933, two years before his retirement: "There are no closed compartments in nature into which man, animals, and plants can be separately placed. All are related organically and, as we may say, united physiologically and pathologically. No essential biological division exists between man and the lower animals and plants, whether in respect to health or to disease. If, therefore, we would

learn, and through learning grow more powerful and effective to prevent and to cure disease, to lengthen life and to increase happiness through security in all its varied forms, then we should endeavor to advance in biological knowledge, which alone can free us still further from the evils of disease."

Only after his retirement did I come to know Dr. Flexner at all well. He cut himself off completely from the administrative affairs of the Institute; and it was really very moving to observe the unobtrusive way in which he came into the buildings to go to an office located in a remote corner away from the stream of activity. When I consulted him it was always about something in which I knew he had a great personal interest, as I felt the problems of the day should be solved without burdening him; and on those occasions he was always very generous with his explanations. More and more as the years went by I came under the spell of his friendly manner and his gentle personal charm. But the man I have come to know best is the legendary figure who built the Institute. At one time or another I have had occasion to examine in detail the numerous plans, decisions, regulations, and policies; and for every one of them I have found an excellent stated or obvious reason. I can tell you he was a very wise man.

HERBERT S. GASSER

II

YOU have not asked me to join with you this afternoon because of anything I can say about Simon Flexner's place in medicine; but only, I assume, because it seemed appropriate that someone who was a layman, and had been for long his friend, by taking part in this symposium might help to fill out the different aspects of his career. I shall forgo saying anything of my personal relations with him beyond seizing this chance gratefully to acknowledge the many acts of kindness that he did me over more than forty years of uninterrupted friendship. Whenever I asked his advice, he made me feel, not that he was doing me a favor, but that we were jointly interested in a situation to whose solution he might, and believed he could, bring some help; and wise, practical help he invariably did bring. These "little unremembered acts of kindness and of love" did not seem such to him; but they did to me, and I come with gladness to add my personal tribute of affection to the memory of a lost and faithful friend, whom I shall not replace. However, this too is not what you have asked of me; but how he appeared to one who had no competence to measure his achievements in his calling. I shall try to describe one trait in his character which in my relations with him most impressed me. It was by no means the only one that did; but since I deem it especially precious, I should like to dwell upon it.

Of those qualities on which civilization depends, next

after courage, it seems to me, comes an open mind, and, indeed, the highest courage is, as Holmes used to say, to stake your all upon a conclusion which you are aware tomorrow may prove false. Surely we need no proof in these disastrous days that, if men would only bear and forbear, would only hold their beliefs tentatively and subject to verification, would try to see with each others' eyes, the greatest part of this world's woes would be at an end. Now, it would seem—at first blush as we lawyers say—as though the discipline of a scientist was the best assurance one could ask of a disposition not to judge till one had examined, and always to verify before one acted; and so it has indeed always been with the great names in science, as it has been with the truly great names everywhere. But scientists are not exempt from human frailties, and the spirit of tolerance cannot exist without scepticism, and scepticism is a late comer upon the human scene, and will always remain an alien: like all aliens, at best it will always be suspected. Life is the transmission of received symbols into action, and accommodation between the objective significance of the symbols and the conduct they provoke is often remote or non-existent. As William James says somewhere: "Nature tells all frogs to jump for what looks red and take their chances. If it is only red meat, well and good; if it is red flannel on a hook, in the long run also well and good, though not for that particular frog."

I sometimes wonder, if you will forgive me, whether the very severity of the discipline of science may not predispose its pupils to revel in the luxury of conviction,

when in other fields they find themselves relieved from the insistent scrutiny which their calling exacts. Doubt being abnormal, human nature has an unlovely way of asserting itself with violence, when outraged by the burden of an eternity of verification. Set free from professional responsibility, one may at last feel that one can be one's real self—yes, that deepest, truest, because that primitive, self. May I call to mind, as an illustration, the attitude some fifty years ago of physicists towards philosophy, which was then driven home upon me, because I had a short and unsuccessful love affair with philosophy at the time? As a lover, I well remember my indignation at the arrogant, and at times, illiterate, hostility against all that went by the name of metaphysics. Eschewing all barren exercises in what seemed to them the most sterile of verbal gymnastics, the physicists of that time lived, contented and assured, in a Lucretian universe of those tidy little marbles, which only needed one perfect and comprehensive Newtonian equation to make precisely ascertainable each moment of the past, and each moment of the future. They had no “blank misgivings of a Creature moving about in worlds not realized”; they never did “tremble like a guilty thing surprised.” Dogmatists, dealing in a currency which was sure never to suffer depreciation, they could afford to sweep into the rubbish heap any inane visitants from Laputa, who were still unaccountably allowed to strut upon the boards. Yet how now have all their axioms vanished into Limbo. Could they return, it would be to find all the chessmen gone with which they played their game; and even those

neat models forbidden us which, until only a few years ago, we were allowed to use, as helps over hard places. All these replaced by entities, beside which those of the Schoolmen look solid and practicable; all replaced by a nominalistic universe of the purest conceptualistic fabric. It is immoral to ask about the shape or the position of an electron, and indeed it is doubtful whether the question is not nonsense. Moreover, whatever it may be—for with existence it does appear to be endowed—no more wayward creature ever came into the universe of discourse. Indeed, we are assured that it is only because the world is filled with mythical myriads of these capricious witches and their partners, the equally unpredictable protons, that we are not battered about in a perpetual *Walpurgisnacht* of meaningless agitation. Jeans appears to have been wrong about God; he is not a Mathematician, only a Statistician, a kind of Sublimated Actuary.

As I knew Simon Flexner, he wholly escaped this snare. Whether it was the struggles of his early years, the necessity of accommodating himself to narrow opportunities and exacting duties, of putting at continual hazard all that he had so hardly achieved, I cannot say. I knew him only after he had won the recognition which followed him through the rest of his life. But after all, was not that just the season to expect a crop of arrogance, self-assurance and complacency? It never appeared; not a single shoot ever pushed its ugly head above the surface. Surely, in medicine you too must be familiar with those laymen who can correct your obvious imbecilities; at any rate we lawyers find on all sides lay answers to our most

perplexing problems, which we are assured that we reject only because we are a stiff-necked generation, incapable of change or progress. Not so with him; if I talked my shop he was interested, understanding and sympathetic, with the mellow interest, understanding and sympathy of a spirit, whose horizons encompassed much territory, and which was well aware that of the perils of the soul among the most grievous are pride and certitude. When too he spoke of his own shop, it was the same; lucidly he could explain it in such terms as a layman could comprehend, or at least in such that he left, thinking that he had comprehended. Nor was there shadow of assertion beyond what the evidence seemed to warrant up to that moment. Open, detached, ready to revise, never insistent to convert, no crusader, or the friend of crusades or crusaders. It was on this account that I always came away from him, conscious of that sort of rare communion which, were it common, would at length make this world a home for beings who might justly be called human. One life, I know, does not move us far along the road; but I am convinced that it is only in proportion as we honor and foster such lives that we shall move at all towards freedom. That is not the faith of this generation; in its pathetic pursuit of that ever retreating pot of gold, it puts its trust in loyalties, in creeds, in causes, in regulation, in institutions, in courts, in principles, in propaganda. The one thing to which it will not trust is the vagrant mind and the self-directed soul. So be it, by their fruit ye shall know them; and do we need to be assured that our fruit is bitter?

And so I thank you for letting me have a part with you here. I thank you first in the name of my affection; but even more I thank you in the name of that homage which all of us owe, and, for myself, with a full heart I pay, to the memory of one who was far-sighted and temperate and wise and just.

LEARNED HAND

III

THE first paper Simon Flexner ever wrote is a quaint piece; it tells of a time when the practice of medicine was simple. Young Flexner, a year out of medical school, writes to convince Kentucky practitioners that laboratory examinations actually can aid in diagnosis, and he reports examples that have come his way, of blood and stomach and kidney disease, with a few tumors for good measure. The material is a medley, but not so with the thought of the author or his wording. Both show all the lucidity for which later he was noted. He orders his motley facts, they march, they get somewhere.

To read this paper is to relinquish the legend that in the next year Simon Flexner presented himself as an unknown to Dr. Welch who realized his worth by a happy act of supersensory perception. In reality he had sent Dr. Welch one of the tumors he describes and the latter had not merely given it a name, no, he had answered, "One could not call the growth simply angio-sarcoma. It should properly be called fibro-angio-sarcomatodes." With good reason he wrote as to a brother-in-arms. For his correspondent in Kentucky showed himself familiar with the French and German advances of the day. Dr. Welch knew what he was about when he appointed the new Fellow in Pathology at Johns Hopkins.

Nonetheless the meeting of the two men was the most momentous event of Simon Flexner's scientific life. He would wish this to be said here. It did more than give

him opportunity and the teachings of a master. Between them there came to be an admiration, trust, and friendship which grew greater all through their lives. This truly is the stuff for legend; it has indeed a trace of the miraculous. The men were almost comically unlike in personal traits and habits, and neither altered his ways for the other. But for them these incongruities did not exist.

During the next thirteen years Simon Flexner looked everywhere into pathology; his papers are like a museum in print, except that they stir with life; for he experimented as well as described. He went off to study meningitis in a mining town and—as if home-grown diseases were not enough—interested himself in the plague and leprosy. Hence he was prepared when America took over the Philippines and wanted to know about medical conditions there. On the journey out he studied the plague in action at Hong Kong, and from Manila he brought back cultures of an active cause of dysentery, since known as the Flexner type of the dysentery bacillus. On his return he went to be Professor of Pathology at the University of Pennsylvania; but barely was he on the spot when the Federal Government asked him to decide whether there was plague in San Francisco, a possibility many of its loyal citizens refused to entertain. He found the plague sure enough, it was promptly cooped up, the rats transmitting it were killed, and people ceased to die of it. But by this time he was back in Philadelphia, studying how bacterial poisons and snake venoms act.

Now came the formation of The Rockefeller Institute for Medical Research. In Europe there were already

foundations either to learn about infectious diseases or to give scope to individual men of genius, Louis Pasteur, Robert Koch, Paul Ehrlich. The Institute was far broader in conception. Dr. Flexner was one of the seven who first shaped its plans, a fact to be stressed since it means that he was wholly aware of the momentous nature of his task when he was asked to be Director somewhat later. He had helped outline what this task would be. From the moment of appointment he gave himself over completely to the Institute. All that he had done before was preamble. Devotion he had learnt early, amidst his family and with Dr. Welch. Now the Institute became his life.

To many persons it seemed a precarious undertaking. Not a few scientists of the day held discovery to be so wholly personal that research on a large scale for stated purposes would be a waste of time; they were noisy about it. Even proved investigators wondered whether they could justify themselves solely by what they found out. Dr. Flexner himself asked Dr. Welch, "Why should I risk taking the directorship?"; he was 40 years old, secure and brilliant in his university setting. But the question was rhetorical as both men knew; for they had not been playing with fantasy when they and their fellows planned the Institute. But to ask others who were safely placed, to stand or fall by what they could discover was a different matter. It was no accident that half of the first group of Institute workers were men without an academic blessing, individualists for whom there was no place in the prevailing scheme. Dr. Flexner dared to appoint them and they justified him.

And he dared more. The founding of the Institute had stirred the imagination of the public; research was then a magic word, with none of the workaday connotations of the present time. But though people expected shining discoveries, Dr. Flexner held the Institute to its prime purpose of basic research. The papers printed in the early volumes of the Institute *Studies* are abstruse by ordinary standards—stuff to make a newspaperman wring his hands. Only scientists could see their worth.

The Director himself became a worker in the laboratories, and that was fortunate. After little more than a year an epidemic of cerebrospinal meningitis swept into New York, killing right and left. What could be done about it? This was the Institute's moment of practical use; Dr. Flexner's study of the Maryland epidemic now stood him in stead. Swiftly, while the disease raged, he inoculated its causative bacterium into animals, developed a serum (with the aid of a single assistant) which hindered and often cured it, and determined how this serum could be most effectively used. It remained the only hopeful recourse of the physician for more than three decades, saving thousands of lives, until the sulfa drugs came in.

Another few years and the citizens of New York were in even worse trouble—infantile paralysis had got across from Europe. Neither its cause nor how it spread was known, and there was panic. Dr. Flexner, again with an assistant, transmitted it to monkeys, proved it due to a virus—in confirmation of a discovery just made in Europe—passed it from one animal to another, and found out much concerning its action and how it enters the body.

The facts he uncovered have led on to all later investigation. But this time serum treatment did not check or cure the disease, and even today the effort to combat it is little further along. Throughout later years he never ceased to struggle with the problem. Always he came back to it, though he worked also in an enlightening way on the viruses causing other maladies of the nervous system, and, proceeding from the particular to the general, devised an experimental method wherewith to reveal the laws governing epidemics.

These were personal achievements, but there was another, vastly greater, the Institute he was making. He made it an organism, not an establishment; it was to deal with life and must itself be constantly changing, like all things alive. Only its larger structure could persist. Consider what this meant. In the search for original workers Dr. Flexner had to appraise human beings of a baffling kind. The unknown has strange intimates; the ability to discover may reside in persons of the most unexpected sort. He had to recognize them, and there was the more need to choose right because the Institute had no place for the wrong—there were no quiet nooks for routinists. Furthermore he had to judge by promise mostly, not by middle-aged achievement, since there could be few permanencies. Scientists, like poets, are often soon done, so he had to be constantly on guard lest through this happening the Institute become a backwater for incapacity. Sometimes, perceiving the uses of originality better than its owner, he had to show him where to apply it or adroitly make such shifts as would give it scope. Al-

ways his faith in the uncommon man was such that he had patience with him.

These were but details. Continually he enlarged the capabilities of the Institute. He looked off into distant realms of science and saw what they might contribute to it. Again and again people asked one another, "But what has *that* got to do with medicine!" when he appointed a worker from some far domain. They soon learnt. He sought advice diligently, yet his independence of judgment was complete; he would even appoint men against whom he had been specifically warned. The warnings had led him to scrutinize them and to perceive that originality had been their bane. For gifted research men are not always the amenable creatures that executives suppose; many have the boldness of their ideas. There have always been people in the Institute who could and would fill its buildings with their projects, if given the chance. Dr. Flexner liked it that way; this was mental enterprise thrusting forth. Yet it had to be checked and channeled, humorously, adroitly, or on occasion sternly. He had many ways of saying no. Once a Member, meeting him in the hall, upbraided him, asserting that the Institute was not democratic, that it should be run by a committee of its Members. "Why, that's a fine idea," answered Dr. Flexner. "Suppose you select them." The other man fell into dismay. There wasn't really any other Member he'd like to select, but he'd not thought of that before, though Dr. Flexner had.

Dr. Flexner went to extreme lengths with himself for the purposes of the Institute. Never physically strong, he

learnt reticence and dispatch as saving procedures. In the first years he was an enthusiast, unable to stay away from a laboratory where a discovery was hatching; in he would come every day or so, smiling hopefully. But enthusiasm has its pitfalls, it must be replaced by cool appraisal; so he replaced it, yet kept his joy in success. He could and did lose his temper at times; this would not do. He was nervous by temperament; well, temperament must be harnessed. If he allowed himself to worry, this was just sheer loss; so he learnt to shut troubles away, each in a compartment tight against thought until the time came for thinking. Only so could he have strength for his needs. No Spartan ever held more foxes under his cloak, but he did better than the Spartan; he kept them from gnawing him. When he had made mistakes he spent no time in recriminations with himself nor became fearful of making more. Enmity was distasteful to him. One of his assistants would often try mischievously to get him to remark on some man who had attacked him. It was not to be done; he parried each endeavor. The only elation he knew was from discovery within the Institute; he had no pride of place. His fidelities were deep, yet when personal friendship clashed with the interests of the Institute he did not hesitate, friendship must give way. These were sacrifices and triumphs impossible to most men, who fight throughout their lives a losing battle against what they are. As time passed his mastery of himself became superb.

Until the Institute grew big Dr. Flexner kept in touch with the lives of all the staff. He made the older workers

feel a responsibility to develop the younger as scientists in their own right; there are letters extant in which this responsibility is forcibly pointed out to them. But his care transcended duty. If a man had become jaded from hard work, he would sometimes invent a scientific errand to take him to fresh scenes for a while; the man went off proud of the mission, unaware of the real reason for it. He knew when to be generous and had secret ways of helping—secret because he deemed it unwise that they should be other. When a young worker's wife had an appendicitis for which his salary did not allow, or perhaps a baby, a check might come out of the blue to tide the situation over. He would labor to assure good positions to men who had left the Institute thinking he cared nothing about them, and would not let them know that he did. Many of these acts have only just come to light as the bond of silence has been loosened; this may indeed be the first outspoken mention of them. But their influence is potent still. Not the least part of science is its humanities.

Yet with all said, individuals were as nothing to Dr. Flexner compared with the welfare of the Institute. You have been told how drastically he changed himself for its purposes. He expected sacrifices of others too, or at need would sacrifice them himself and take the onus. Since he could not act on his sympathies, little by little as time went, he became withdrawn from persons. But for him this meant privation.

Nothing showed more sharply his mastery of self than his conduct on retirement. He knew that he had fash-

ioned an instrument for good the like of which had not been seen; but he knew too that while art is long, science is endless. And he had not that last infirmity of scientific minds, the belief that what one still can do is unique, that no one else can do it. So he put away all he had lately been, divested himself of Institute thoughts, would not hear of its new happenings, much less discuss them or ask a question. He would go free, and there was a task he had promised himself, a history of Dr. Welch and his times. The book—in which his younger son was co-author—will be read whenever scholars wish to learn how medicine became a science in America and what Simon Flexner himself was like. Amidst the restraint with which he describes the deeds of his hero, one can see everywhere his veneration and love.

You will have noted that this account of Simon Flexner, which was to tell of him as scientist and maker of the Institute, has veered to the man himself. He might not approve all that is here disclosed; yet his reproof would be gentle, for we are his friends. And we should know what we can of him who said so little of himself. It never occurred to him that there was anything great about him.

PEYTON ROUS

IV

WHEN we think of Simon Flexner, we naturally think of the Rockefeller Institute. The Institute was his lengthened shadow as it is his monument. But Dr. Flexner's impact on the scientific development of his generation was by no means limited to the Institute. His influence ranged over wide areas, not only in the United States but in Europe and Asia as well. We can only hint at it today, partly because we do not know all the facts and partly because in trying to assess the influence of a single individual we are in an area of imponderables where the relation between cause and effect is elusive.

For example, what part did Dr. Flexner play in the creation of the Kaiser Wilhelm Gesellschaft in 1911? During the period that he worked in Emil Fischer's laboratory in Berlin, did his long discussions of his own plans and dreams for the Rockefeller Institute help to sow the seeds that grew into the amazing series of scientific institutes under the Kaiser Wilhelm Gesellschaft?

Again, what was the effect of his long intimacy with Sir Walter Fletcher, the secretary of the Medical Research Council of Great Britain? They were close friends and associates, and it is possible to imagine the extent to which Dr. Flexner's ideas contributed to the development of medical research in England through the Council over which Sir Walter presided so brilliantly and so imaginatively in the long years of his service.

I mention these two situations, not with the idea of

answering specifically the questions which they raise but to make the point that the consequences of a dedicated life radiate far beyond the limits of a particular country or a particular institution.

But when we come to the question of Dr. Flexner's influence on an organization like The Rockefeller Foundation, we are on more certain ground. We do not have to trust to unverifiable hypotheses. We speak from our own knowledge and from long years of intimate association.

Dr. Flexner was one of the charter members of The Rockefeller Foundation, and his name appears in the certificate of incorporation of 1913. It was not until eight years later that I came to know him as a fellow-trustee of that organization. By that time he was definitely established as the accepted dean of the board, not only its chief scientific adviser, but its Knowledgeable Man to whom one looked for the final nod of approval. It was fascinating to watch him in action. His slight build, his soft voice, his gentle manner, were all in striking contrast to the steely precision of his reasoning. His mind was like a searchlight which could be turned at will on any question that came before the trustees.

And it was not with pygmies that he was surrounded on that board; there were giants in those days. There was Mr. Gates, who spoke with Olympian authority—I might almost say, with Olympian finality—backed by the passionate realism of an honest and determined mind. There was Wickliffe Rose with his amazing lucidity and imagination, and his instinct for boldness and wide horizons. There was Dr. Vincent with a mind like a rapier

and a brilliantly cynical wit that punctured pretensions and absolutes. And among these giants—and I could mention others—walked Simon Flexner, a supremely modest man, essentially a shy man, a man who never raised his voice or resorted to emphasis, and yet who was easily the most powerful single figure in the group.

How did it happen? What was there about him that gave him this position of unchallenged leadership? I cannot answer the question. I can only testify from years of observation that it was true. For nearly a decade I served with him both on the Board of Trustees of the Foundation and on the Executive Committee and on countless other committees that were created to deal with details of program or with matters of administration. Always behind the soft timbre of his voice, behind his gentleness, behind his quiet smile, there was an authority, a compelling power, that was never disputed.

But although we cannot put our fingers on the sources of it, we can describe some of its outward aspects. In the first place his mind was essentially a creative mind. It is interesting to trace in the early history of the Foundation the constructive ideas that emanated from Dr. Flexner. For example, the establishment of National Research Council fellowships in physics and chemistry and in the biological sciences was based on plans which he initiated and developed. In the years that have followed, the Foundation has appropriated several million dollars for this purpose, and a whole generation of American scientists has received its advanced training through this procedure. One has only to picture what American sci-

ence was like at the beginning of the century and compare it with the stature it has achieved today to realize how fundamental was Dr. Flexner's contribution to this amazing development.

Another result of his creative mind is the Peking Union Medical College. He was a member of the commission which The Rockefeller Foundation sent to China in 1915. The commission consisted of Dr. Welch, Dr. Buttrick, and Dr. Flexner. It is impossible, of course, accurately to ascribe to particular individuals the exact credit which each deserves for the founding of that monumental enterprise, but the minutes which the commission kept of its deliberations show in fascinating detail the active, constructive part which Dr. Flexner played. They sailed from San Francisco on the Japanese steamer *Tenyo Maru*, and at their very first meeting, held on board ship, Dr. Flexner set the tone of the whole development. "We must create the Johns Hopkins of China," he said. "We must give superior medicine to China." And he made another point to which he clung in all the discussions that followed: "The best men must be chosen to teach regardless of their ability to teach in Chinese. . . . It is tremendously important to prepare students to keep abreast of the literature of medicine. They must have German as well as English." It was his insistence on this point that finally carried the day, against considerable opposition, and resulted in what he wanted more than anything else—high quality, high standards, a school of modern medicine that would be the Johns Hopkins of China.

Not only did he have a creative mind; he had a sympathetic mind. Dr. Alfred Cohn describes him as tenderhearted. I do not think it would be true to say that he was governed by his affections. He was governed, at least primarily, by a faith that truth was worth discovering and by a driving urge to serve that faith to the limit of his strength. But at the same time we must recognize that his capacity for friendship, for affection, played an important part in his life. Again quoting Dr. Cohn, "He loved people." I have commented on his shyness. It may not have been shyness. Perhaps it was a quality of caution, a kind of gentle dignity, the reserve of a sensitive man who guards the inner citadel of his spirit. But whatever it was, it raised no insuperable barriers between himself and the world. He loved people, particularly his associates, and they in turn loved him.

This reciprocal attitude is dramatically illustrated in his relations with Mr. Gates. I think one would have to search over wide areas to find two men who were so completely different: Mr. Gates, intense, forceful, impetuous, fiery in his words, powerful in exhortation, with a mind that was too precipitous to be always tolerant, and with a voice that thundered from Sinai; and Dr. Flexner, considerate, exquisite in his courtesy, incisive, cautious, exact, and just a little afraid of adjectives. And yet between these two really great men there developed an affection, an understanding and a loyalty that remained to the end. The last thing that Mr. Gates said to me before his death—and I jotted it down at the time—was this: "If the Trustees of The Rockefeller Foundation had any sense

—which I doubt—they would give their entire capital fund to the Rockefeller Institute to be spent at the discretion of Simon Flexner.”

Perhaps I should hasten to add that I did not agree with Mr. Gates, but I appreciated the faith and the devoted loyalty which prompted his observation.

May I give one more illustration of the part that affection played in the life of Dr. Flexner. Early in 1928 Dr. Noguchi died of yellow fever in Africa while on service with The Rockefeller Foundation. That summer Dr. Vincent in London heard that Dr. Flexner was not well, and he sent him a letter of inquiry. Dr. Flexner replied from Southwest Harbor in Maine and this is what he said:

“I am sorry to have given you concern about my health, and I thank you for your solicitous letter. I came away from New York after a more than usually exacting year and much depressed by Noguchi’s death. Our close association extended over a period of almost 30 years. I witnessed the extraordinary growth of the man and I had not only a deep personal feeling for him but also great admiration for his almost unique scientific attainments. His death, therefore, shocked and distressed me profoundly. Moreover, the loss to the Institute is incalculable, and as one who has followed its development as jealously as I have, so great and irreparable a loss could not be otherwise than extremely painful and depressing.”

That was the Simon Flexner whom we knew—a man of deep loyalties who adopted as his own the sorrows and tragedies of his friends. And yet he faced life with com-

plete fearlessness, meaning not merely courage but serenity and the subordination of anxiety. I suspect he knew intuitively what so many of us find difficult to learn: that the willing acceptance of life, with all its visitations and changes, is in the last analysis the distinguishing characteristic of the man who is master of himself.

In closing his life of President Eliot of Harvard, Henry James used a quotation which could with equal appropriateness, it seems to me, be applied to Simon Flexner:

"He once wrought upon the very structure of our characters. . . . Something of him will be a part of us forever."

RAYMOND B. FOSDICK

V

FOR nearly half a century I have known Dr. Flexner; I have worked with him, enjoyed his friendship, respected, admired and loved him. In the field of scientific medicine he was one of the outstanding men of his age. In the lives of his friends and fellow workers he was a wise, sympathetic, understanding and inspiring personality—a great spirit.

Of Dr. Flexner's achievements, others will speak. I shall try to recall his personality, to mention some of his outstanding characteristics, some of the qualities that made him an inspiring leader and a beloved friend. Since the early years are the formative years, let me picture briefly Dr. Flexner's childhood and youth.

Born in Louisville, Kentucky, on March 25, 1863, Dr. Flexner was the fourth of seven brothers and had two younger sisters. The father of this large family, a fairly prosperous merchant, was seriously embarrassed by the depression of the early seventies. Thus it was necessary for all the boys to go to work as soon as possible to help with the family expenses. Simon became an errand boy in a drugstore while attending public school. Hoping, apparently, to make himself more useful in the drugstore, he subsequently studied at a school of pharmacy, and on graduation was awarded a medal for excellence.

Little is recorded of Dr. Flexner's mother. Obviously he must have been very fond of her for his first earned

savings were spent on a gift for her of a curtain which she greatly wanted to hang over the hall door.

Along in these early years, young Simon, possibly moved by a desire for a fuller life than his daily routine supplied, gave evidence of budding poetical ambitions. These took form in a poem entitled, "The Dying Arab To His Steed," which he began to write on the wrapping paper of the drugstore. However, when his employer, his elder brother, Jacob, complained of the rapidity with which the supply of wrapping paper was being exhausted, although little suspecting the cause, these literary efforts were brought to a sudden end.

It was quite probably Simon's course in the school of pharmacy that aroused his desire to be a doctor. Toward the attainment of that end he studied at the Medical School in Louisville while still working as a druggist's clerk, being allowed time off to attend lectures. In 1889 he got his medical degree. The following year he went to Johns Hopkins University to study with Dr. Welch on the recommendation of his brother, Abraham, who had heard of Dr. Welch's reputation. Quickly did Dr. Welch recognize in the young drug clerk the eager spirit, the desire to learn, the willingness to work hard and, above all, the spark of genius which Dr. Welch was an adept at discovering and developing in his students. Thus there began a relationship between master and pupil that was destined to last throughout life and that was as mutual in the happiness which resulted therefrom, as it was productive in the advancement of medical science.

What Dr. Welch thought of his young protégé, who

quickly made a name for himself in his chosen field, is reflected in a letter Dr. Welch wrote me on June 25, 1902, in regard to the appointment of Dr. Flexner as Director of the Laboratories of the Rockefeller Institute. In that letter Dr. Welch said:

“You will be pleased to know that Dr. Flexner has accepted the directorship of the new laboratory to be established in New York. . . . In my opinion we could not find a better man for this position than Dr. Flexner. He has demonstrated unusual capacity as an original investigator in the lines to be furthered by the Institute, has had experience in the organization and conduct of an important laboratory, is very attractive and stimulating to young men working under his direction, and has an established international reputation in his special field of research. His acceptance, I believe, insures the immediate success of the new laboratory. He will have no difficulty in getting a group of bright, young workers about him.”

How fully Dr. Welch's judgment was confirmed by the Institute's subsequent record of service to humanity under Dr. Flexner's able and inspiring leadership is a matter of history.

Of the many qualities in Dr. Flexner which drew people to him, one of the most characteristic was his kindness. Throughout the years of his relation to the Institute, I sought his aid again and again for a sick child or other member of the family, an ailing associate, a friend or employee who had a difficult health problem, as well as personally. Invariably and with infinite kindness, he made an exhaustive study of the problem and never failed

to suggest a wise and helpful solution. The good health of the Rockefeller family unto the second and third generation is in no small degree attributable to Dr. Flexner.

But with all his kindness, Dr. Flexner never lacked courage. Although always maintaining an open mind, he stood unflinchingly by his convictions and beliefs. When in 1915, with Dr. Welch and Dr. Buttrick, he went to China for The Rockefeller Foundation to study existing medical schools and hospitals—largely missionary—it developed that valuable service could often be rendered an institution by a frank appraisal. These appraisals were frequently critical. When that was the case the other members of the commission shrank from communicating them to those concerned. But Dr. Flexner's courage was always equal to the task, which he invariably performed with such kindness, as well as candor, that the value of the report vastly outweighed its unpalatableness.

A more striking illustration of his courage is to be found in Dr. Flexner's acceptance in 1902 of the Rockefeller Institute's invitation to become Director of its laboratories. This necessitated giving up an established and financially assured position in the University of Pennsylvania, for the uncertainties inherent in the new venture, and that, too, just at a time when Dr. Flexner had taken on the responsibilities of married life. The decision involved not only courage, but vision and faith, all of which qualities he possessed in fullest measure.

What a wise man Dr. Flexner was! How sound his advice, which was never given except after mature consideration and was always worth listening to! In the Board of

The Rockefeller Foundation, of which he was a charter member, continuing on for seventeen years until the age of retirement, his opinion not only on medical questions, but likewise in other fields of the Foundation's activities, always carried great weight with his fellow trustees, and with the officers as well, who often went to him for advice.

Few man had a keener sense of humor than Dr. Flexner or laughed more heartily at a joke. There was one story I asked him to tell over and over again. It was this. As a boy he had acquired for a mere pittance a second-hand gun. Just to handle the gun intrigued him, but ultimately the desire to fire it became almost an obsession. The tin mansard roof of a house across the street from his attic window offered a tempting target. The first experiment was made without casualties. This led to the repetition of the exciting adventure until one day a woman, appearing at a window within the range of his fire, suddenly disappeared while the firing was going on. Young Simon was sure he had killed her and expected momentarily to be sought out by the police. The minutes dragged by, then hours, and finally days, but nothing happened. In spite of the disconcerting fact that the woman never reappeared at the window, Simon's apprehension gradually waned while his desire to resume his target practice waxed in proportion, until one day it became irresistible and he again opened fire. This time his fire drew an immediate response in the form of a ring at the doorbell and the message that the woman across the street had nearly been killed and would the young man please

discontinue his shooting. How we all laughed! The tears fairly rolled down the Doctor's cheeks as he recounted this thrilling but amusing episode of his youth.

Dr. Flexner's powers of leadership, his ability to inspire those who worked with him, were due largely to two factors: first, the confidence people had in him; second, the complete freedom he gave them. He believed, above all else, in brilliant, able, gifted men and the worthwhileness of their achievements whatever their choice of problems might be.

But, among all Dr. Flexner's splendid traits there was none more endearing than his utter simplicity and modesty. Typical of him was it to say when asked some question which he better than anyone could answer with complete assurance, "Do you suppose this might be the answer?", going on to state in that tentative way what he knew to be the unquestioned facts.

The following quotation from a letter which Dr. Flexner wrote me in 1926 well illustrates this quality of modesty. This is what the letter said:

"The opportunities afforded by the Rockefeller Institute to serve science and humanity have always made me humble. How often have I wished for more learning, greater natural ability, a more farseeing vision, in order that the greatest usefulness might be evoked from that magnificent endowment. I have often felt so insufficient, that your generous words, even though I feel them too complimentary and considerate, have given me a comfort and satisfaction the stimulus of which I can hardly hope to express."

How true it is that the really great are always modest!

Here I should like to quote a message I sent Dr. Flexner in 1943 on his eightieth birthday. The message read in part:

“The eightieth birthday of a man whose life has been so exceptionally rich in outstanding service of unique importance to his fellow men throughout the world is an occasion not only of profound significance to the friends of that man, but to humanity around the globe. To have been one of your fellow workers during the greater part of your highly productive career has been one of the real privileges of my life, while to have enjoyed your friendship throughout these decades will ever be a precious memory.

“May added years of health and happiness be your portion together with increasing satisfaction in the results of your beneficent accomplishments!

“Affectionately and devotedly, your friend of the long years.”

In closing, may I speak of my last visit with the Doctor. I was at his home, in March of this year, some weeks after his first, long stay in the hospital and shortly before his second operation. He and Mrs. Flexner were having tea by the fireside. We had not seen each other for a year or more but we picked up the threads of our lifelong friendship as though we had been together on the previous day. In spite of all he had been through, Dr. Flexner was cheerful, thoughtful and charming, saying nothing of his illness, but taking a keen interest in whatever subject I introduced. We had a delightful visit. I came away with

imperishable memories of a wonderful friend and a great personality.

While his bodily presence is no longer with us, the spirit of Simon Flexner lives on—lives on in the lives of countless young men whom he has trained; in the work of many whom he has inspired; in the grateful remembrance of hundreds of thousands of human beings who bless him each day as the unknown cause of their being alive; in the ever-widening circle of influence radiating from his myriad services to mankind; in the hearts of his countless friends and fellow workers in many lands, who join with us today in thanking God for the enrichment that has come into their lives and ours because Simon Flexner has lived among us.

JOHN D. ROCKEFELLER, JR.

